CH2MHILL 3/4/97

Comments - CALFED Ecosystem Restoration Program Plan - Volume I: Ecological Zone Visions - Pages 329 - 408 - In-house Working Draft: February 24, 1997

General comment: Language in the Actions varies from "should's" to "would be's" to "could be's" to "will be's". Should these be made more consistent throughout? Is the plan saying these actions will be done, or are these recommendations for actions?

General comment: Population graphs should be labeled as estimated escapement in the watershed, or whatever population estimate it actually is. Flow graphs should be labeled with the time period of record.

Page 330 - column 1 - bullet 3 - include only Mokelumne River (adequate riparian habitat along the Calaveras and Cosumnes rivers).

Page 330 - c. 1 - bullets 5 and 6 - line 6 - ">" should be replaced with "≥".

Page 330 - c. 2 - last paragraph - add delta smelt to sentences 1 and 3.

Page 331 - c. 2 - paragraph 1 - delete poaching.

Page 331 - grades - Riparian and SRA should be rated a "B". Delete gravel recruitment, water temperature, and predation and competition - these haven't been identified as problems here.

Page 331 - Unimpaired flow graph is missing.

Page 333 - c. 1 - Vision - paragraph 1 - change "unscreened diversions" to "screened diversions".

Page 333 - c. 2 - 1rst incomplete sentence - change "and improvements in gravel recruitment and riparian habitats" to " and establishment of a riparian protection zone".

Page 333 - c. 2 - Increase flows - are development of new water supplies or water transfers viable options in the Cosumnes River basin? With only small diverters, willing sales will probably be the only way to increase flows. Change "late fall" to "fall".

Page 334 - c. 1 - Add another bullet: "Improve fish passage at small diversion dams: Remove diversion dams during migration period or provide adequate conditions for passage."

Page 334 - c. 1 - last sentence - poorly written - change to "... salmon and steelhead through improvements in streamflow, riparian and shaded riverine aquatic habitat, gravel recruitment, fish passage, and reduction in predation, illegal harvest, and entrainment at diversions".

Page 334 - grades - The 1996 Principles of Agreement for the lower Mokelumne River, already implemented by EBMUD, provides for a much improved flow regime on the river, with provisions for adaptive management of flows. The resource agencies have signed the POA, and although it's a negotiated settlement, the flows have been agreed upon. EBMUD

justifiably will hit the roof if they see CALFED has rated this flow regime an "F". I'd rate it more like a "B-". Contaminants should be added to the grades, with a "D" rating.

Page 336 - c. 2 - 1rst sentence - add delta smelt in with Amer. shad and striped bass.

Page 337 - c. 1 - paragraph 2 - Principles of Agreement signed in 1996.

Page 338 - c. 1 - 1rst incomplete sentence - add in delta smelt. 1rst complete sentence - change to "Restoration of a streamflow pattern which meets the habitat needs of anadromous and resident native fishes will be important". (don't necessarily want a "natural" streamflow pattern)

Page 338 - c. 1 - 3rd complete sentence - delete "more natural".

Page 338 - c. 2 - Increase flows - need reference for DFG flows - DFG (1993) - DFG has probably made a lot of different flow recommendations over the years. Need to reference the location of streamflow targets (Highway 99). Normal year flows should be 300 - 450, October through June. The statement that these flows should be provided "only when inflows to Pardee are at these levels" is very weasily and doesn't make much sense. Inflows to Pardee may be much lower than current releases at certain times of the year - does this statement mean that releases can be cut back to inflow levels at any time? This wording would not necessarily protect water supply, either, since releasing up to the current inflow level may cut into storage available for later use. In systems with large reservoir storage capacities relative to the basin runoff, it doesn't make sense to relate real-time inflow to downstream flow releases.

Page 338 - c. 1 - add in a bullet: "Improve water temperature regime: An evaluation will be made of the potential for improvement of the water temperature regime to benefit key resources through release of sufficient instream flows, improved reservoir management and/or the use of temperature control devices."

Page 339 - bullet 1 - Vegetation planting will be required.

Page 339 - c. 2 - add bullets: "Reduce illegal harvest of salmon and steelhead: Additional law enforcement, incentives for reporting violations, and education programs will be implemented to reduce illegal harvest." "Reduce losses due to input of contaminants: A water quality monitoring program should be established, and Camanche Dam releases should be managed to optimize water quality."

Page 340 - paragraph 1 - change vision to " CALFED's vision for the Calaveras River is to restore more consistent runs of winter and/or fall-run chinook salmon and the ecological processes that support their habitat."

Page 340 - grades - Delete riparian vegetation, gravel recruitment, predation and competition, illegal harvest, and SRA (or leave them in, but with an A or B grade). These have never been identified as problems here. Riparian habitat is adequate along the Calaveras. Streamflow should not be rated an "F" since operation of New Hogan Dam improved flows in many months and may have increased the frequency of salmon runs in the river.

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Page 341 - Historic monthly flow graph - this graph is kind of misleading, since most of the water is diverted before it reaches the mouth of the river. This graph makes the flow situation look better than it actually is for fish.

Page 341 - c. 1 - Vision - delete gravel recruitment, riparian improvement, and add water temperature regime.

Page 342 - c. 1 - Increase flows - Specific flows were not identified for this river in DFG (1993). There are flows identified in the draft AFRP - should these be spelled out here for consistency with other rivers? Where did these pulse flows come from? Is there any supporting data for these? Are these timed right to benefit winter-run salmon? Since New Hogan Dam has increased flows in the lower river in many months over unimpaired flows, limiting flow releases to inflows at New Hogan may not make sense.

Page 342 - delete "Improve gravel spawning habitat" bullet - this hasn't been identified as a limiting factor on this river. Delete "riparian habitat" references from next bullet. Add a bullet for "Improve water temperature regime".

Page 342 - last bullet - establishing a local restoration conservancy - would there really be any interest in this basin for this? The lower reaches of the river are flood control canals - who's going to be part of this conservancy?

Page 345 - grades here don't match the grades in the stream visions.

Page 346 - 1rst paragraph - Mokelumne River target - A "natural" streamflow pattern should not be the target, since the Mokelumne is a highly regulated system and fall flows have been increased with the dams in place (better upstream migrating conditions now exist for fall-run). It is inconsistent to recommend that the flows in the POA be implemented and evaluated and that the DFG (1993) flows be provided. Which is CALFED recommending? The vision section recommended the DFG (1993) flows with no reference to the POA flows.

2nd paragraph - Calaveras River target - No minimum flows were recommended for the Calaveras River by DFG (1993). Origin of pulse flow recommendations? Would these still be needed if there were no anadromous fish in the river in a particular year?

Page 346 - c. 2 - Action #2 - Will new water supplies be developed on the Cosumnes River? During the summer months, most of the stream is dry under natural conditions.

Page 346 - c. 2 - Rationale - 1rst paragraph - Fall flows on the Mokelumne and Calaveras rivers have been increased by water projects.

Page 347 - c. 2 - paragraph 1 - Recommending a pulse flow on the Calaveras River for these purposes doesn't make sense. Since the lower river consists of flood control channels, it will take more than water there to support the natural stream meander. Existing gravel supply is adequate and a dense riparian canopy exists. On the Mokelumne River, a late February/early March pulse is too early to improve downstream migration of fall-run chinook or improve attraction of adult fall-run chinook. Is there any data to support these flow levels?

Page 347 - c. 2 - Gravel recruitment target for Calaveras River - gravel recruitment has not been identified as a limiting factor on the river by DFG or USFWS.

Page 349 - c. 2 - P.A. #2 - delete Calaveras River.

Page 352 - Unscreened diversions - in Vision, it states that " all unscreened and inadequately screened diversions will be screened with positive screens." On 352, c. 2, last action states "evaluate the feasibility of installing state-of-the-art fish screens on small pump diversions". This is inconsistent - is the report recommending all or just the larger diversions be screened?

Page 353 - c. 1 - 1rst action - poorly worded.

Page 353 - c. 2 - Target - Change "Reduce poor water quality problems..." to " Improve water quality...".

Page 363 - c. 2 - paragraph 1 - delete 1rst sentence (already in c. 1).

Page 363 - c. 2 - last paragraph - delete "Instream sand and gravel mining..." sentence. There is no instream mining on the tributaries and the tributaries are covered in another zone.

Page 364 - c. 1 - 2nd complete paragraph and 1rst paragraph column 2 - delete - "Also needed will be...modifications of the flood control system described above." As I understand it, the current discussions of floodplain re-establishment includes only the reach downstream of the Merced River confluence.

Page 365 - c. 1 - paragraph 3 - No instream mining currently occurs in this reach - abandoned or active pits are outside the active channel.

Page 365 - c. 2 - paragraph 2 - Include these agencies as participating in flood control discussions: USBR, DFG, NRCS.

Page 369 - Looks like the format here is different from previous chapter - "Applicable ecological subunits" are included and "Action" replaced "PROGRAMMATIC ACTION".

Page 371 - c. 2 - Target here is to reduce entrainment by 50% - this is inconsistent with other areas (where 100% is implied).

Page 375 - paragraph 1 - delete "fish passage" - not an issue here. Change all references in the zone to "steelhead" to "rainbow trout/steelhead". The existence of anadromous steelhead in the zone has not been confirmed. Delete "natural" when referring to streamflow.

Page 375 - c. 2 - last bullet - 50% reduction in entrainment - inconsistent with other sections?

Page 376 - c. 1 - bullets 5 and 6 - Second ">" should be a "≥".

Page 376 - c. 1 - Is there a reason that late fall-run evaluation was omitted?

Page 377 - grades - Streamflow should be a "D". Delete fish passage - not a problem here. Add Contaminants, with a "B".

Page 381 - c. 2 - Increase flows - Here, AFRP flows are recommended instead of DFG (1993) flows recommended for most of the other streams. Were draft AFRP flows used for the CVP streams and DFG flows used for the others? Is this inconsistent? On page 379, the

DFG flow recommendations are mentioned, but on page 381, the AFRP flows are recommended. Tulloch Dam should be changed to Goodwin Dam. The duration of the pulse flow recommendation should be specified - is it for a 2-day period or a 30-day period? The statement " Such flows would be provided only when inflows to NMR are at these levels" is a weak way to soften the previous recommendation and it doesn't make much sense. This will not protect water supply - just because inflow is adequate to cover the release requirement, it doesn't mean that it won't cut into supplies that could have been stored for later use. The report should let the flow recommendation stand or delete it. Due to the very large storage capacity compared to basin runoff, and the variety of purposes for which releases are made, tying a release recommendation to real-time inflow to the reservoir doesn't make sense. This comment applies to all three San Joaquin River basin tributaries.

Page 381 - c. 2 - Under Improve stream channel bullet, should add something about restoring channel morphology in areas where past gravel mining activities left large abandoned pits in the channel (which cause stream warming, provide predator habitat, and disorient up and downstream migrating fish). This applies to other San Joaquin tributaries also.

Page 381 - Need separate bullets for improvement of water temperatures (which is not only a flow issue), introduced species control, and contaminants. This applies to all San Joaquin tributaries.

Page 382 - 1rst incomplete paragraph - Vegetation restoration (replanting) will be needed. (Applies to all San Joaquin tributaries).

Page 382 - c. 1 - 3rd bullet - "Establish a local restoration conservancy..." The political atmosphere regarding fishery conservation is very different in the San Joaquin River basin than in the Sacramento Valley. The report doesn't appear to be sensitive to that - CALFED should not recommend establishment of conservancies modeled after the ones on Mill or Deer creeks on the San Joaquin tribs - it won't happen - the attitudes and participation will be very different. It would be better to recommend that existing efforts in the San Joaquin basin be expanded to include a broader based constituency instead of saying that brand new groups should be formed modeled after the Sac. River groups.

Page 382 - Is improvement of the fine sediment budget adequately covered by the actions here? (Improvement of land management and livestock grazing practices, etc.) This applies to all San Joaquin River tributaries.

Page 383 - grades - Streamflows in new FERC agreement (currently in effect) are a big improvement over existing conditions - ModID/TID will be justifiably enraged to see the new flow regime graded a "D". The agreement was the product of long negotiations and has been signed by the resource agencies. I'd give it maybe a "B-". Other grades should be: Water temp. - C (in some cases, it's better than the natural situation), Riparian and SRA - C, Unscreened diversions - C, Channel config. - C, Fish passage - delete - not an issue on the Tuolumne.

Page 384 - c. 1 - paragraph 2 - 40,000 fish returned in 1985, not in 1995.

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Page 386 - DFG flows have been mostly met by the new FERC agreement on the Tuolumne. Add reference (DFG 1993) - DFG has probably made a lot of different flow recommendations over the years. Specify the duration of the pulse flow - 2 days or 30 days?

Page 387 - c. 1 - bullet 2 - paragraph 2 - 1rst sentence should be changed to "It may be desirable to supplement fall-run chinook salmon populations in the San Joaquin River basin through additional artificial production." I understand that the new hatchery on the Tuolumne would be used to supplement populations in the entire San Joaquin basin - the population on the Tuolumne already is artificially supplemented with releases from the Merced River Hatchery. 2nd sentence - add "additional" before artificial augmentation.

Page 388 - grades - delete fish passage.

Page 389 - c. 2 - 1rst sentence - change to "As with the Stanislaus and Tuolumne rivers, the presence of distinct populations of late-fall run chinook salmon and steelhead has not been confirmed."

Page 392 - c. 2 - Actions - 1rst bullet - These are not the DFG flow recommendations - these are the existing FERC license flows - the correct flows should be put in. Again, specify pulse flow duration.

Page 393 - c. 2 - 1rst sentence - Shouldn't promise to restore gravel pits to "natural" conditions - would have to move a mountain of material to do that - replace with "Large in-channel pits created by past gravel mining activities will be restored to improve up and downstream passage of chinook salmon, reduce stream warming, and reduce predation on juvenile salmonids.

Page 394 - Pathways to Vision - sentence 1 - change to: "East San Joaquin Basin" Eco. Zone.

Page 396 - paragraph 1 - streams repeated twice.

Page 396 - Delete "fish passage" under Stressor resource elements (only issue is straying and that's covered in the mainstem San Joaquin River vision).

Page 397 - grades - delete fish passage - change grades as recommended previously for each vision.

Page 398 - c. 1 - Target. Stanislaus River - Tulloch should be replaced with "Goodwin" Dam.

Page 398 - c. 2 - Target - Merced River - replace and reference true DFG (1993) flows.

Page 398 - c. 2 - Spring Pulse Flows - when referring to striped bass and American shad, state "downstream in the mainstem San Joaquin River" - these species do not occur within the zone. No one has talked recently at all about restoring spring run to the basin - where did this come from?

Page 399 - c. 1 - P.A. #2 - Change "unpermitted" to "illegal" - riparian diversions are legal, but don't require a water right permit.

Page 400 - last sentence - change to "The pulse flow recommendation was based on natural (unimpaired) flows in the lower Stanislaus River."

Page 405 - c. 1 - Rationale - 1rst sentence - This applies to all San Joaquin tribs, not just the Merced River. 6th sentence - delete "Other species...." to the end of the paragraph. Striped

bass, American shad, and brown trout do not occur in the zone; rainbow trout predation has never been identified as a limiting factor.

Page 405 - c. 1 - Target - Target is 50% entrainment reduction; it's 100% or all diversions in the vision section. Inconsistent.

Page 405 - c. 2 - Fish Passage section - delete - straying problem covered in the mainstem San Joaquin River section, and there aren't any temporary diversion dams in the zone.

N-1 In Volume II - Resource Visions - Pages 7 - 8 - These grades for streamflow don't match those in the text of Visions for each stream.

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